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ABSTRACT

A study investigated the effects of presentation mode and type of content on young children's recall of nouns in a scripted narrative. Forty-nine children in the second month of first grade were presented a fictional narrative in which were embedded 18 target nouns classified as high-scripted, medium-scripted, or low-scripted. Subjects then viewed pictures of the nouns, viewed both pictures and printed labels of the nouns, or viewed pictures and read and copied the printed labels. They then answered 18 questions, tapping their memories for 6 cued and 12 noncued nouns, immediately after hearing the story and at 2 later times. The results indicated that children's knowledge is well organized in a scripted form. Not only was recall for both cued and noncued high-scripted nouns significantly greater than recall for medium-scripted and low-scripted nouns in all three sessions, but also recall of the highly scripted noncued nouns did not decline over sessions. The results also demonstrated that experience with a written code does not promote better performance on a memory task. The same procedure was administered to 17 children in their final month of third grade. The results showed no evidence of recall facilitation due to the labeling treatments. (Nine references and two tables of data are included.) (HTH)

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YOUNG CHILDREN'S SCRIPTED-STORY RECALL

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ABSTRACT

This study investigates the effects of presentation mode and type of content on young children's recall of nouns in a scripted narrative. In their second month of grade one, children involved in a longitudinal study of the development of writing skills were presented a fictional script-like narrative depicting a visit to McDonald's. Eighteen to-be-recalled nouns were embedded within the story, and were classified as high-scripted, medium-scripted, or low-scripted depending on the likelihood of their occurrence in a common event sequence. The 49 children were randomly assigned to one of three presentation conditions, and for six of the nouns, viewed pictures, or viewed pictures and read printed labels, or viewed pictures and both read and copied printed labels. Children's recall for all 18 nouns was tested at three interval delays, immediately after presentation to four weeks later. Analyses revealed character of content and session, but not presentation mode, to affect recall. These results and the data obtained from examination of seventeen children in their final month of grade three indicate that for children in the primary grades, experience with written labels does not enhance memory. Recall was best in session one, and children exhibited the highest levels of correct responding to high-scripted nouns in all three sessions. Recall for both medium- and low-scripted nouns declined significantly from session one to two. The most common errors were intrusions of scripted nouns: Children responded to questions concerning medium- and low-scripted nouns by substituting an incorrect medium-scripted noun for the correct response. The implications of the present study are that first grade children possess well-developed representations of common events (cf. Mandler, 1983) which they use to guide and enhance the memory process, and which can be exploited in the development of curriculum materials for primary education.

INTRODUCTION

In recent years, researchers have suggested that knowledge is organized around cognitive structures called scripts (Schank & Abelson,1977; Mandler, 1983). According to Schank and Abelson (1977), scripts are composed of a number of sequences of events or frames which are, in turn, further divided into more detailed subparts or slots. The slots and frames are chained together either temporally or causally (or both) and what resides in one slot affects what can exist in another.

With respect to the memory process, several investigators attribute both costs and benefits to scripts (Hudson & Nelson, 1983; Myles-Worsley, Cromer, & Dodd, 1986; Nelson, Fivush, Hudson, & Lucariello, 1983). Schematically organized information is often easier to remember than other types because people develop expectations for what typically happens in a common event sequence. However, the remembered information is also often biased in the direction of the script; people sometimes confuse what was presented with their knowledge of what might have been presented (Bower, Black & Turner, 1979 ; Kail, 1985).

Graesser, Woll, Kowalski & Smith (1980) examined memory for atypical and typical actions and discovered that adults relied more over time on scripts to guide memory. They found that when retention intervals were short, atypical actions were remembered better than typical actions, but that the reverse was true for longer time-periods.

According to Hildyard and Hidi (1986), grade six students recall productions they have written better than those they have generated orally. As well as exploring the relationship between writing experience and recall of a scripted narrative, this study examined the effects of degree of scriptedness on recall over time.

METHOD

Forty-nine children (31 girls and 18 boys) were tested in the second month of their first year in school. Children were presented a fictional narrative depicting a trip to McDonald's in which were embedded 18 target nouns classified as high-scripted, medium-scripted, or low-scripted. The children were assigned

to one of three presentation conditions: those in the picture-only group viewed pictures of the nouns, those in the picture-label group viewed both pictures and printed labels, and those in the picture-label- written group saw pictures and both read and copied the printed labels. The children were then asked to respond verbally to a set of 18 questions, tapping their memories for six cued and twelve non-cued nouns. These probes were presented immediately after hearing the story and at two later times.

RESULTS

Separate 3 (presentation condition) X 3 (content) X 3 (session) analyses of variance were performed for cued and non-cued nouns. The analysis for non-cued items revealed an interaction (see Figure 1) and two significant main effects. Table 1 reports the mean performance of the experimental groups. There was a content X session interaction, $F(4,152) = 8.39$, $p < .01$, a significant effect of content, $F(2,76) = 34.60$, $p < .01$, and a significant effect of session, $F(2,76) = 38.57$, $p < .01$. Scheffe's post-hoc comparisons disclosed a significant difference between high-scripted nouns and medium-scripted nouns in session one, $F(4,152) = 57.62$, $p < .01$. There were no significant differences among sessions for performance on high-scripted nouns; the children gave more correct responses to high-scripted nouns than to medium- and low-scripted nouns in all three sessions. The comparisons also revealed a significant difference between medium-scripted nouns in session one and medium-scripted nouns in sessions two and three, $F(4,152) = 35.76$, $p < .01$, and the same for low-scripted nouns, $F(4,152) = 127.25$, $p < .01$. Recall for both medium- and low-scripted nouns was better in session one than in later sessions. Results for cued nouns were similar to the results obtained for non-cued nouns with the exception that high-scripted nouns declined significantly from session one to session two, $F(4, 152) = 7.71$, $p < .01$. Analysis of response errors indicated that the most common errors were intrusions of scripted nouns: Children responded to questions concerning medium- and low-scripted nouns by substituting an incorrect medium-scripted noun for the correct response. Approximately half of the responses of this type were nouns previously mentioned in the narrative, and half were nouns drawn from a plausible script for going to McDonald's.

DISCUSSION

The results of this study lend support to the hypothesis that children's knowledge is well organized in a scripted form. Not only was recall for both cued and non-cued highly-scripted nouns significantly greater than recall for medium- and low-scripted nouns in all three sessions, but also recall of the highly-scripted non-cued nouns did not decline over sessions. This finding suggests that scripts are permanent structures that are effective in guiding memory over extended periods of time. Although the data for cued nouns revealed recall for highly-scripted nouns to be better than recall for medium- and low-scripted nouns in all three sessions, performance deteriorated significantly from session one to two. This finding, however, may be artifactual, stemming from the small number of cued highly-scripted nouns presented to each child and the fact that one of the highly-scripted nouns appears to be less scripted for grade one children than for the adult experimenter who generated the noun classification system (see Table 2 for specific item analysis).

Contrary to Graesser et al., 1980, in the first session of the present study, children did not remember the low-scripted nouns better than the high- or medium-scripted nouns. One possible explanation for this finding is that perhaps the low-scripted nouns were not atypical enough in the eyes of the children to produce the expected effect. The analyses of variance for cued and non-cued nouns, as well as the specific item analysis uphold this interpretation. Children exhibited similar levels of correct reponding to medium- and low- scripted nouns in all three sessions, and the item analysis revealed considerable overlap between these two noun categories. These findings indicate that the children did not consider these experimenter-contrived categories to differ to the extent expected, and suggest that rather than having been presented with three different kinds of nouns (high-, medium-, and low-scripted), the children actually only experienced two: highly-scripted and not-so-highly-scripted.

Hildyard and Hidi (1986) found that grade six children remember their written productions better than those they have generated orally. The results of the present study demonstrate that for children at the beginning of grade one, experience with a written code does not promote better performance on a memory task. This outcome may be due to the fact that the children were at a very early stage in the development of their reading and writing skills. In an attempt to

verify this interpretation, the procedure was administered to seventeen children in their final month of grade three. These grade three children showed no evidence of recall facilitation due to the labelling treatments employed here, so one might conclude that for children in the primary school grades, written labels do not appear to enhance recall.

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Table 1

Summary Table for Mean Number of Correct Responses to Cued and Non-Cued Nouns

Session		Presentation Condition[a] P-O Cued	P-O Non-cued	P-L Cued	P-L Non-cued	P-L-W Cued	P-L-W Non-cued
	H-S	2.00	3.59	2.00	3.65	2.00	3.33
1	M-S	1.46	2.94	1.54	2.70	1.62	2.53
	L-S	1.69	2.70	1.46	2.35	1.38	2.33
	H-S	1.61	3.35	1.92	3.59	1.69	3.20
2	M-S	1.00	2.41	1.23	1.82	1.15	1.73
	L-S	1.07	1.41	1.00	1.47	0.77	1.20
	H-S	1.69	3.31	1.69	3.60	1.69	3.38
3	M-S	1.07	2.12	1.23	2.07	1.23	1.92
	L-S	0.92	0.94	1.00	1.53	0.77	1.08

Note: Maximum score for cued nouns = 2.0; maximum score for non-cued nouns = 4.0.

[a]Presentation group: P-O = Picture-only; P-L = Picture-label; P-L-W = Picture-label-written

Table 2
Proportions of Correct Responses to Individual Items

High-scripted		Medium-scripted		Low-scripted	
Daddy	.99	Truck	.70	Apron	.52
Ketchup	.98	Burger	.70	Tea*	.42
Garbage	.94	Pickle	.59	Soup	.40
Baby	.89	Waitress**	.56	Kool-aid	.40
Mittens*	.89	Plate**	.53	Doctor	.33
Napkin	.88	Bear**	.53	Book	.30

* originally classified as medium-scripted
** originally classified as low-scripted